Title (en)

SYSTEM AND METHOD FOR CONTROL OF HIGH EFFICIENCY GENERATOR SOURCE IMPEDANCE

Title (de)

SYSTEM UND VERFAHREN ZUR STEUERUNG DER QUELLENIMPEDANZ EINES HOCHEFFIZIENTEN GENERATORS

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMMANDE DE L'IMPÉDANCE DE SOURCE D'UN GÉNÉRATEUR À HAUT RENDEMENT

Publication

EP 3782184 A1 20210224 (EN)

Application

EP 19721505 A 20190418

Priority

- US 201862660893 P 20180420
- US 2019028171 W 20190418

Abstract (en)

[origin: US2019326093A1] A power supply system controls the source impedance of a generator in real time utilizing two amplifiers having asymmetrical power profiles in reference to a nominal load impedance that are diametrically opposite in reference to the nominal load impedance. Variations in power profiles may be achieved by using different topologies for each of the amplifiers or implementing a phase delay network. The output power from the first and second amplifiers may be combined using a combiner circuit or device and the output power from the combiner is transmitted to a plasma load. The output power of each amplifier may be independently controlled to alter one or more characteristics of the output power signal provided by the individual amplifiers. By changing the ratio of the output power of the first amplifier to the output power of the second amplified, the source impedance of the generators may be varied in real time.

IPC 8 full level

H01J 37/32 (2006.01); **H03H 7/38** (2006.01); **H03H 7/40** (2006.01)

CPC (source: EP KR US)

H01J 37/32082 (2013.01 - EP); **H01J 37/32128** (2013.01 - KR US); **H01J 37/32146** (2013.01 - EP KR US); **H01J 37/32174** (2013.01 - EP); **H01J 37/32183** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2019204640A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 10840063 B2 20201117; **US 2019326093 A1 20191024**; CN 112534541 A 20210319; CN 112534541 B 20240611; EP 3782184 A1 20210224; EP 3782184 B1 20230823; JP 2021522644 A 20210830; JP 7317045 B2 20230728; KR 20200142565 A 20201222; TW 201944708 A 20191116; TW I822765 B 20231121; US 11562888 B2 20230124; US 2021057189 A1 20210225; US 2023139755 A1 20230504; WO 2019204640 A1 20191024

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US 201916388574 A 20190418; CN 201980035790 A 20190418; EP 19721505 A 20190418; JP 2020557215 A 20190418; KR 20207032763 A 20190418; TW 108113836 A 20190419; US 2019028171 W 20190418; US 202017093333 A 20201109; US 202218090069 A 20221228